AMENDMENTS TO THE CLAIMS

1.   (PREVIOUSLY PRESENTED) A method of treating psychosis comprising: identifying a subject suffering from one or more symptoms of psychosis; and administering to said subject a composition comprising an amount of N-desmethylclozapine sufficient to ameliorate the one or more symptoms of psychosis while increasing a level of activity of a muscarinic receptor.

2.   (ORIGINAL) The method of claim 1, wherein the subject is human.

3.   (PREVIOUSLY PRESENTED) The method of claim 1, wherein the amount of N-desmethylclozapine is administered as a single dose.

4.   (PREVIOUSLY PRESENTED) The method of claim 1, wherein the amount of N-desmethylclozapine is administered as a plurality of doses.

5.   (PREVIOUSLY PRESENTED) The method of claim 1, further comprising administering to said subject an additional therapeutic agent.

6.   (PREVIOUSLY PRESENTED) The method of claim 5, wherein said subject is administered said additional therapeutic agent subsequent to administering N-desmethylclozapine.

7.   (PREVIOUSLY PRESENTED) The method of claim 5, wherein said subject is administered said additional therapeutic agent prior to administering N-desmethylclozapine.

8.   (PREVIOUSLY PRESENTED) The method of claim 5, wherein said subject is administered said additional therapeutic agent substantially simultaneously with N-desmethylclozapine.

9.   (ORIGINAL) The method of claim 5, wherein said additional therapeutic agent is selected from the group consisting of selective serotonin reuptake inhibitors, norepinephrine reuptake inhibitors, dopamine agonists, antipsychotic agents, and inverse serotonin 2A agonists.

10-58. (CANCELED)

59.   (WITHDRAWN) The method of claim 9, wherein the antipsychotic agent is selected from the group consisting of a phenothiazine, phenylbutylpiperadine, debenzapine, benzisoxidil, and salt of lithium.

60.   (PREVIOUSLY PRESENTED)   The method of claim 9, wherein the antipsychotic agent is selected from the group consisting of chlorpromazine (Thorazine®),

mesoridazine (Serentil®), prochlorperazine (Compazine®), thioridazine (Mellaril®), haloperidol (Haldol®), pimozide (Orap®), clozapine (Clozaril®), loxapine (Loxitane®), olanzapine (Zyprexa®), quetiapine (Seroquel®), risperidone (Risperdal®), ziprasidone (Geodon®), lithium carbonate, Aripiprazole (Abilify), Clozaril, Compazine, Etrafon, Geodon, Haldol, Inapsine, Loxitane, Mellaril, Moban, Navane, Orap, Permitil, Prolixin, Phenergan, Reglan, Serentil, Seroquel, Stelazine, Taractan, Thorazine, Triavil, Trilafon, Zyprexa, and pharmaceutically acceptable salts thereof.

61.   (WITHDRAWN) The method of claim 9, wherein the selective serotonin reuptake inhibitor is selected from the group consisting of fluoxetine, fluvoxamine, sertraline, paroxetine, citalopram, escitalopram, sibutramine, duloxetine, venlafaxine, and pharmaceutically acceptable salts and prodrugs thereof.

62.   (WITHDRAWN) The method of claim 9, wherein the norepinephrine reuptake inhibitor is selected from the group consisting of thionisoxetine and reboxetine.

63.   (WITHDRAWN) The method of claim 9, wherein the dopamine agonist is selected from the group consisting of sumatriptan, almotriptan, naratriptan, frovatriptan, rizatriptan, zomitriptan, cabergoline, amantadine, lisuride, pergolide, ropinirole, pramipexole, and bromocriptine.

64.   (WITHDRAWN) The method of claim 9, wherein the inverse serotonin 2A agonist   is   N-(1-methylpiperidin-4-yl)-N-(4-flourophenylmethyl)-N'-(4-(2-methylpropyloxy)phenylmethyl)carbamide.

65.   (PREVIOUSLY PRESENTED) The method of claim 1, wherein the one or more symptoms comprise positive symptoms of psychosis.

66.   (PREVIOUSLY PRESENTED) The method of claim 65, where the positive symptoms include one or more of hallucinations and delusions.

67.   (PREVIOUSLY PRESENTED) The method of claim 1, wherein the one or more symptoms comprise negative symptoms of psychosis.

68.   (PREVIOUSLY PRESENTED) The method of claim 67, where the negative symptoms include one or more of apathy, social withdrawal, and anhedonia.

69.   (PREVIOUSLY PRESENTED) The method of claim 1, wherein the psychosis is associated with schizophrenia.

70.   (PREVIOUSLY PRESENTED) The method of claim 1, wherein the psychosis is associated with Alzheimer's disease.

71.   (PREVIOUSLY PRESENTED) The method of claim 1, wherein the composition comprises from 0.01 to 1000 mg of N-desmethylclozapine.

72.   (PREVIOUSLY PRESENTED) The method of claim 1, wherein the muscarinic receptor is an M1 receptor.

73.   (PREVIOUSLY PRESENTED) A method of treating psychosis, comprising administering to a subject an amount of N-desmethylclozapine sufficient to ameliorate one or more symptoms of the psychosis and to treat cognitive impairment of any origin.

74.   (PREVIOUSLY PRESENTED) The method of claim 73, wherein the subject has a neurodegenerative disorder.

75.   (PREVIOUSLY PRESENTED) The method of claim 74, wherein the neurodegenerative disorder is Alzheimer's disease.

76.   (PREVIOUSLY PRESENTED) The method of claim 73, wherein the administration increases a level of activity of a muscarinic receptor.

77.   (PREVIOUSLY PRESENTED) The method of claim 76, wherein the muscarinic receptor is an M1 receptor.

78.   (PREVIOUSLY PRESENTED) The method of claim 73, wherein the one or more symptoms comprise positive symptoms of psychosis.

79.   (PREVIOUSLY PRESENTED) The method of claim 78, where the positive symptoms include one or more of hallucinations and delusions.

80.   (PREVIOUSLY PRESENTED) The method of claim 73, wherein the one or more symptoms comprise negative symptoms of psychosis.

81.   (PREVIOUSLY PRESENTED) The method of claim 80, where the negative symptoms include one or more of apathy, social withdrawal, and anhedonia.

82.   (PREVIOUSLY PRESENTED) A method of treating, controlling, ameliorating or reducing the risk of psychosis in a patient in need thereof that comprises administering to the patient a therapeutically effective amount of a muscarnic M1 receptor ectopic activator.

83.   (PREVIOUSLY PRESENTED) The method of claim 82, wherein the psychosis is a schizophrenic disorder.

84.   (PREVIOUSLY PRESENTED) The method of claim 82, wherein the psychosis is associated with Alzheimer's disease.

85.   (PREVIOUSLY PRESENTED) The method of claim 82, wherein the psychosis is associated with bipolar disorder.

86.   (PREVIOUSLY PRESENTED) The method of claim 82, wherein the muscarinic M1 receptor ectopic activator is a selective muscarinic M1 receptor ectopic activator.

87.   (PREVIOUSLY PRESENTED) The method of claim 82, wherein the muscarinic M1 receptor ectopic activator is a muscarinic M1 receptor ectopic agonist.

88.   (PREVIOUSLY PRESENTED) The method of claim 82, wherein the muscarinic M1 receptor ectopic activator acts at a different site than the orthosteric site of the muscarinic M1 receptor.

89.   (PREVIOUSLY PRESENTED) The method of claim 82, wherein the muscarinic M1 receptor ectopic activator possesses an EC_{50} for binding to the muscarinic M1 receptor of 1 µM or less as evaluated by the muscarinic FLIPR assay.

90.   (PREVIOUSLY PRESENTED) The method of claim 82, wherein the muscarinic M1 receptor ectopic activator is orally administered.

91.   (PREVIOUSLY PRESENTED) The method of claim 82, wherein the muscarinic M1 receptor ectopic activator is a non-peptidal muscarinic M1 receptor ectopic activator.

92.   (PREVIOUSLY PRESENTED) The method of claim 82, wherein the muscarinic M1 receptor ectopic activator is desmethylclozapine.

93.   (PREVIOUSLY PRESENTED) A method for enhancing cognition in a patient in need thereof that comprises administering to the patient a therapeutically effective amount of a muscarinic M1 receptor ectopic activator.

94.   (PREVIOUSLY PRESENTED) A method of treating, controlling, ameliorating, or reducing the risk of Alzheimer's disease in a patient in need thereof that comprises administering to the patient a therapeutically effective amount of a muscarinic M1 receptor ectopic activator.

95.   (PREVIOUSLY PRESENTED) A method of treating or ameliorating psychosis in a patient in need thereof that comprises administering to the patient a therapeutically effective amount of desmethylclozapine.

96. (PREVIOUSLY PRESENTED) The method of claim 95, wherein the psychosis is a schizophrenic disorder.

97. (PREVIOUSLY PRESENTED) The method of claim 95, wherein the psychosis is associated with Alzheimer's disease.

98. (PREVIOUSLY PRESENTED) The method of claim 95, wherein the psychosis is associated with bipolar disease.

99. (PREVIOUSLY PRESENTED) The method of claim 95, wherein the desmethylclozapine is a selective muscarinic M1 receptor activator.

100. (PREVIOUSLY PRESENTED) A method of enhancing cognition in a patient in need thereof that comprises administering to the patient a therapeutically effective amount of desmethylclozapine.

101. (PREVIOUSLY PRESENTED) A method of treating Alzheimer's disease in a patient in need thereof that comprises administering to the patient a therapeutically effective amount of desmethylclozapine.